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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/026,602

12/27/2001

Tsuyoshi Nakamura

06753.0489

9088

7590

03/25/2005

Finnegan, Henderson, Farabow,  
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EXAMINER

ROJAS, BERNARD

ART UNIT

PAPER NUMBER

2832

DATE MAILED: 03/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

22

<b>Office Action Summary</b>	<b>Application No.</b> 10/026,602	<b>Applicant(s)</b> NAKAMURA ET AL.	
	<b>Examiner</b> Bernard Rojas	<b>Art Unit</b> 2832	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 February 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 2-20 is/are pending in the application.
- 4a) Of the above claim(s) 6-12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2-5 and 13-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \* c) ☐ None of:  
         1. ☐ Certified copies of the priority documents have been received.  
         2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
         3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
     \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Arguments***

Applicant's arguments filed 02/07/2005 have been fully considered but they are not persuasive. Applicants argument that Minoura does not disclose, "wherein one of said switch connector circuit components is formed with a downstream fuse connector portion to which each of said fuses is electrically coupled and a relay terminal configured to be electrically coupled to a connector." Minoura does schematically disclose that the switch connector circuit components are formed with a downstream fuse connector portion to which each of the fuses is electrically coupled and a relay terminal configured to be electrically coupled to a connector [figures 3 and 4]. Regarding claims 16, 17, 18 and 20, any one of common skill in the art knows that changing the order in which the relays are interconnected in circuit 16, figure 4 would create various different configuration so that the relay box can be used in different environments.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5, 13, 14 and 16-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Minoura [US 5,038,050].

Claim 2, Minoura discloses a relay unit [figure 4] with a plurality of relays [figure 4, the squares with the coil and switch inside] and a power supply bus bar [15] configured to supply current to said plurality of relays; wherein said power supply bus bar configured to current to be supplied to the plurality of relays via respective fuses [20] wherein each of said relays includes a pair of switch connector circuit components [relay sockets, figure 3] between which a relay switch element is intervened and a pair of coil connector circuit components between which a relay coil element is intervened, wherein one of the switch connector circuit components is formed with a downstream fuse connector portion to which each of the fuses is electrically coupled and a relay terminal configured to be electrically coupled to a connector [figures 3 and 4].

Claim 3, Minoura discloses that the other one of the switch connector circuit components and the pair of coil circuit are formed with relay terminals to be electrically connected to relevant connectors, respectively [16, figure 4].

Claim 4, Minoura discloses that the power supply bus bar is located at an inner surface of a unit case [figure 4, col. 3 lines 21-23].

Claim 5, Minoura discloses that the power supply bus bar is formed with an upstream fuse connector portion [fuse sockets 24, figure 3]; and the downstream fuse connector portion formed on said one of the switch connector circuit components and the upstream fuse connector portion formed on the power supply bus bar are located in an opposed relationship to form a pair of fuse connector components [figure 4].

Claim 13, Minoura discloses that the plurality of relays are connected to the respective fuses by vias on a printed circuit board [col. 2 lines 64-66].

Claim 14, Minoura discloses that each of said plurality of relays is configured to be physically connected to one of the respective fuses [using the fuse and relay sockets shown in figure 2].

Claim 16, Minoura inherently discloses that the pair of switch connector circuit components and the pair of coil connector circuit components are configured to be variably connected to each other [by changing the order in which the components are interconnected in figure 4].

Claim 17, Minoura inherently discloses that the relay unit is configured to allow a variety of relay circuit patterns to be formed [by changing the order in which the relays are interconnected in circuit 16, figure 4].

Claim 18, Minoura inherently discloses that each of said plurality of relays is configured to allow a variety of relay circuit patterns to be formed [by changing the order in which the relays are interconnected in circuit 16, figure 4].

Claim 19, Minoura discloses that the relay terminal is configured to supply power to its respective relay [figures 3 and 4, the terminals provides power to the relay coil as shown in figure 4].

Claim 20, Minoura inherently discloses that the plurality of relays are configured to be variably connected to each other [by changing the order in which the relays are interconnected in circuit 16, figure 4].

***Claim Rejections - 35 USC § 103***

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Minoura [US 5,038,050].

Claim 15, Minoura discloses the claimed invention with the exception of an electrically conductive trimmer joint position disposed between some of the pair of switch connector circuit components and the pair of coil connector circuit components. It would have been obvious to one having ordinary skill in the art at the time the invention was made to place trimmer joint between these components since it was known in the art that this would create a circuit that can be easily customized according

Art Unit: 2832

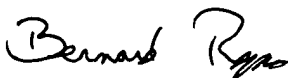
to its intended use by simply using the trimmer joint to create different circuit output configurations.


### **Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bernard Rojas whose telephone number is (571) 272-1998. The examiner can normally be reached on M-F 8-4:00), every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Elvin G. Enad can be reached on (571) 272-1990. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
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